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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/531,496

04/15/2005

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EXAMINER

LEUBECKER, JOHN P

ART UNIT

PAPER NUMBER

3739

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/531,496	Applicant(s) HASEGAWA ET AL.	
	Examiner John P. Leubecker	Art Unit 3739	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3-8 is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 9-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/15/05 & 3/7/08</u> . | 6) <input type="checkbox"/> Other: _____ |

Specification

1. The abstract of the disclosure is objected to because it should not begin with the phrase “The present invention comprises:”. Correction is required. See MPEP § 608.01(b).

Claim Objections

2. Claim 1 is objected to because of the following informalities: in claim 1, line 14, “range shape estimating means” should just be “shape estimating means”. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 15 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 15 and 16, the phrase “the direction of the lumen estimated from the shape of the distribution of pixels” is indefinite since a direction of the *lumen* has not previously been *estimated* from the shape of the *distribution* of pixels. Instead, it appears from claims 9 and 10, that an inserting direction is determined from the shape of the specified area. In addition, the phrase “the direction of the lumen estimated from the shape of the specified area” is indefinite since the direction of the *lumen* has not previously been *estimated*.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2 and 9-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Gillies et al. (U.S. Pat. 4,916,533).

As to claim 1, Gillies et al. disclose an endoscope inserting direction detecting apparatus comprising: image input means (31,35) for receiving an endoscopic image from an endoscope that is inserted into a body cavity; pixel sampling means (35, col.5, line 41 to col.7, line 19) for sampling a stated pixel value from the endoscopic image received by the image input means; shape estimating means (35, col.9, line 53 to col.10, line 66) for estimating the shape of a specified area on the basis of the continuity of the distribution of pixels that indicate the stated pixel value and that are sampled by the pixel sampling means; and inserting direction determining means (35, col.11, line 1 to col.12, line 12) for determining an inserting direction within the body cavity, in which the endoscope should be further inserted, according to the shape estimated by the range shape estimating means.

As to claim 2, the pixel sampling means samples pixels that represent a halation which is caused by specular reflection in the body cavity or pixels that represent the edge of a fold on an inner wall of the body cavity (e.g., col.11, lines 4-7).

As to claim 9, note similar elements as described above with respect to claim 1. In addition, the pixel sampling means indicate “high pixel value” (e.g., col.6, lines 23-38). Furthermore, Gillies disclose a pixel selecting means (col.7, lines 3-19) for selecting pixels which lie in a specified area from among the pixels sampled by the pixel sampling means and a display means on which the inserting direction is displayed (note col.13, lines 9-13 which indicates that the detected inserting direction is indicated to the endoscope operator in some way—however it is indicated would be considered being “displayed” to the endoscope operator).

As to claims 10 and 12, the specified area is a range defined with a plurality of circles or ellipses (col.11, lines 29-39).

As to claim 11, note similar elements as described above with respect to claims 1 and 9. In addition, the endoscopic image is of the large intestine (col.11, lines 15-19).

As to claims 13 and 14, note col.11, lines 25-57.

As to claims 15 and 16, since the shape of the distribution of pixels (detected fold) corresponds to the shape of the specified area (col.9, lines 37-50), the insertion direction is determined according to these.

As to claims 17-20, note col.10, lines 23-66.

Allowable Subject Matter

7. Claims 3-8 are allowed.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Suzuki et al. (U.S. Pat. 5,018,509)

Feldstein et al. (U.S. Pat. 5,347,987)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Leubecker whose telephone number is (571) 272-4769. The examiner can normally be reached on Monday through Friday, 6:00 AM to 2:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C.M. Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John P. Leubecker/
Primary Examiner
Art Unit 3739

jpl